

REMARKS

Claims 1-102 are all the claims pending in the application. Claims 1, 23, 45, 62, 79, and 91 are the only independent claims.

Applicant notes with appreciation that the IDS papers have been signed and acknowledged by the Examiner.

Claims 1-102 stand rejected under 35 U.S.C. §102(e) as being anticipated by Smith (U.S. 6,018,118). Applicant respectfully traverses these rejections, and requests reconsideration and allowance of the pending claims in view of the following arguments.

Claim 1 is directed toward a multi-channel signal processing system which includes “a transducer signal interface for receiving a plurality of distinct incoming audio electrical signals produced in response to vibrations of an associated plurality of vibrating elements.” Page 2 of the Office Action indicates that user input device 102 and sensor 120 of Smith disclose the just-identified claim elements. Applicant respectfully disagrees.

Smith does not disclose “vibrations” or “vibrating elements”

The Action alleges that user input device 102 and sensor 120 of Smith disclose the claimed “transducer signal interface.” However, the Action fails to refer to the specific portions of the specification relied upon for the “vibrations” and “vibrating elements” claim features. To illustrate the differences between Smith and claim 1, it is instructive to examine the functionality of device 102 and sensor 120 of the Smith patent.

In particular, Smith describes these components as follows:

“a user input device 102 that generates a set of user input signals, preferably in response to movement and pressure applied by a user's fingers to sensors on the input device 102;” (Col. 3, lines 39-42) (emphasis added).

“a signal mapper 110, which maps user input signals into music synthesis control signals;” (Col. 3, lines 48-49).

“Each sensor 120-i is a ‘force sensitive resistor’ (FSR) that, in combination with the sensor signal reading circuitry 104, generates two output signals: one (LOCi) indicating the position at which it is being touched (if any), and a second (FRCi) indicating the amount of force (if any) being applied to the sensor, where ‘i’ is an index indicating which one of the sensors produced the sensor signals. Thus, when a user touches sensor 120-i with one of his/her (hereinafter ‘his’, for simplicity) fingers, the signal mapper 110 receives two signals LOCi and FRCi indicative of the position and force with which the user is touching the sensor 102-i.” (Col. 4, lines 12-23) (emphasis added).

Applicant assumes *arguendo*, that user input device 102 and sensor 120 disclose a “transducer signal interface.” Even if this were correct, the system of claim 1 is distinguishable because the Smith components do not receive the same type of signals as the transducer signal interface of claim 1. In particular, as noted above, sensor 120 is a “force sensitive resistor” that generates two signals which separately provide (1) the position at which the user touches the sensor; and (2) the force being applied to the sensor.

Conspicuously missing from Smith is any mention of “vibrations” or “vibrating element.” Again, the Office Action does not indicate where in Smith the purported teachings of these claim elements are located. Because of these shortcomings, Smith cannot teach or suggest a “transducer signal interface for receiving a plurality of distinct incoming audio electrical signals produced in response to vibrations of an associated plurality of vibrating elements.” as recited by claim 1.

Smith does not disclose “incoming audio signals”

Claim 1 further recites “a plurality of signal processors, wherein each processor of said plurality of signal processors receives a selected one of said plurality of incoming audio electrical signals.” The Office Action indicated that the identified claim element is disclosed by signal mapper 110 and mapping function 170.

With regard to the “incoming audio electrical signals” element, Applicant emphasizes that Smith simply discloses the mapping of user input signals (sensor signals) into music control signals. See Smith at col. 3, lines 48-49; and col. 7, lines 62-63. The distinction is that the input and sensor signals are never described or used as audio signals. Recall that such sensor signals are provided by touch sensor 120. Smith provides absolutely no disclosure relating to touch sensor 120 providing audio signals. Because of these shortcomings, Smith cannot teach or suggest the “plurality of incoming audio electrical signals” element of claim 1.

Smith does not disclose “audio output signal”

Claim 1 further recites “wherein each processor of said plurality of signal processors process a received incoming audio electrical signal to produce an audio output signal.” Recall that the Office Action relies upon signal mapper 110 and mapping function 170 as teaching the claimed “plurality of signal processors.” However, the Office Action fails to identify which portions of Smith describe these mapping components as producing an “audio output signal.”

Applicant’s review of Smith finds that these components provide control signals, not the audio output signal as required by claim 1. Portions of Smith which unambiguously state that the mapping components provide control signals include:

“a signal mapper 110, which maps user input signals into music synthesis control signals.” (Smith at col. 3, lines 48-49) (emphasis added).

“More particularly, all changes in the sensor signals are converted by the signal mapper 110 into MIDI signals that are sent to the music synthesizer 112. These MIDI signal specify control parameter values.” (Smith at col. 4, lines 55-59) (emphasis added).

“Mapping Sensor Signals to Control Signals

Fig. 4 diagrammatically represents the process of mapping sensor signals into control signals.” (Smith at col. 7, lines 60-63) (emphasis added).

The forgoing clearly establishes that the so-called mapping components of Smith provide control signals. Applicant emphasizes that control signals and audio signals are completely different types of signals. This is a well-known and elementary principle for which Applicant is prepared to submit supporting evidence, should it become necessary in a future Action. For these reasons, Smith is deficient as an anticipatory reference since it does not teach or suggest the “audio signal output” as required by claim 1.

Clarification requested: control signals vs. audio signals

In the event the Examiner maintains the just-noted rejection, it is requested that the Examiner clarify his position with regard to control signals of the Smith patent. In particular, is it the Examiner’s position that control signals are equivalent to audio signals?

Examiner’s Fletcher’s claim rejections fail to comply with established PTO rules

Presented below is substantially the entire rejection with regard to claim 1. Applicant has annotated the rejection to identify a number of claim elements for which the Examiner has not identified the portions of Smith which have been relied upon to reject claim 1 of the present application.

Smith et al. discloses a multi-channel signal processing system comprising: a transducer signal interface (102, 120) for receiving a plurality of distinct incoming audio electrical signals produced in response to vibrations of an associated plurality of vibrating elements; a plurality of signal processors (110, 170), wherein each processor of said plurality of signal processors receives a selected one of said plurality of incoming audio electrical signals, wherein each processor of said plurality of signal processors process a received incoming audio electrical signal to produce an audio output signal, wherein said processing of said received incoming audio electrical signal is performed by variably changing one or more signal attributes of said received incoming audio electrical signal (figures 1 and 4), wherein said one or more attributes is selected from

Applicant notes that MPEP § 707, citing 37 CFR § 1.104(c)(2), provides:

“... When a reference is complex or shows or describes other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.”

Applicant submits that the rejection presented on the bottom-half of page 2 of the Office Action fails to comply with the requirements of MPEP § 707, thus preventing Applicant a fair opportunity to address the rejection. Moreover, it is well settled in the law that when the Examiner asserts that there is an explicit or implicit teaching or suggestion in the prior art, they must indicate where exactly such teaching or suggestion appears in the reference. See *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993).

In the event Examiner Fletcher continues to maintain the stated rejection, Applicant respectfully requests the Examiner point out the specific portions of Smith, which, in the opinion of

the Examiner, contain the alleged teachings, and explain how the cited portions need be interpreted in order to arrive at the Examiner's conclusions.

In summary, Applicant has demonstrated a number of deficiencies with regard to the teachings of the Smith patent. Applicant could articulate still further distinctions, but the point is clear; Smith does not teach or suggest a number of elements called for in claim 1, and thus, this claim is patentable. Since independent claims 1, 23, 45, 62, 79, and 91 have language similar to that of claim 1, these claims are also believed to be patentable for reasons similar to those set out in conjunction with claim 1. Additionally, the rejected dependent claims would be patentable at least by virtue of their respective dependence upon the patentable independent claims.

Lastly, Applicant acknowledges the other references made of record and not relied upon. However, there is nothing of sufficient relevance to require detailed discussion.

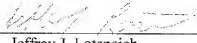
CONCLUSION

In light of the above remarks, Applicant submits that the present Response places all claims of the present application in condition for allowance. Reconsideration of the application is requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,
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